Patent Claims

1. Method for producing homogenized image data of a scene, wherein

- the scene is scanned with a detector which has a multiplicity of sensor elements for producing image signals,
- an overall value is formed for each of the sensor elements, which overall value represents a totality of image signals obtained from one of the sensor elements, so that an overall value profile is obtained at least over a part of the scanned scene,
- the overall values for adjacent sensor elements are used to determine whether differences between these overall values satisfy a predetermined magnitude criterion which indicates inhomogeneities in signal sensitivities of these sensor elements,
- if the magnitude criterion is satisfied, the image signals are corrected such that the magnitude criterion is no longer satisfied, and
- the image data is produced from the corrected image signals or from the image signals which do not satisfy the magnitude criterion.

2. Method according to Claim 1, wherein a first correction of the image signals is carried out for correction of the signal sensitivities, and predetermined correction values, which are associated with the sensor elements, are used for this purpose, wherein the magnitude criterion is applied after the first correction, wherein at least one further correction value, which is associated with a sensor element, is determined if the magnitude criterion is satisfied, and wherein a second correction is carried out using the at least one further correction value,

such that the magnitude criterion is no longer satisfied.

3. Method according to Claims 1, wherein a process of determining whether the magnitude criterion is satisfied includes a check as to whether the overall value of a specific sensor element is an extreme in the vicinity of the sensor element.

4. Method according to Claim 1, wherein processes of determining whether the magnitude criterion is satisfied include a check as to whether any difference between the overall value of a specific sensor element and the overall value of an adjacent sensor element is greater than a predetermined limit value or is greater than a limit value which is determined from a predetermined value and from the overall value profile.

5. Method according to Claim 1, wherein, if the magnitude criterion is satisfied, it is checked as to whether a measure for a totality of possible correction values for correction of the image signals differs from zero or from a measure for a totality of other correction values by more than a predetermined amount.

6. Apparatus for producing homogenized image data of a scene, having:

- a detector for scanning the scene, which detector has a multiplicity of sensor elements for producing image signals,
- a unit for forming overall values, which is configured such that it forms an overall value for each of the sensor elements which overall value represents a totality of image signals obtained from the sensor element, such that an overall value profile is obtained over at least a part of the scanned scene,

- a unit for checking a magnitude criterion, wherein the unit is configured such that it uses the overall values of adjacent sensor elements to determine whether differences between these overall values satisfy a predetermined magnitude criterion which indicates inhomogeneities in signal sensitivities of these sensor elements,
- a unit for correction of the image signals, wherein the unit is configured such that, when the magnitude criterion is satisfied, it corrects the image signals such that the magnitude criterion is no longer satisfied, and
- a unit for producing the image data, which unit is configured such that it produces the image data from the corrected image signals or from the image signals which do not satisfy the magnitude criterion.

7. Apparatus according to Claim 6, wherein the apparatus has a memory device for storing a first set of correction values for correction of the image signals, and has a unit for determining at least one second correction value in order to change the first set of correction values.

8. Apparatus according to Claim 7, wherein the apparatus has a second memory device for storing a third set of correction values, and wherein the apparatus can be controlled such that the third set of correction values can be transferred to the first memory device.

9. Scanner having an apparatus according to one of Claims 6 to 8, wherein the scanner has a unit for displaying the image data produced by the apparatus.